

WHAT IS CLAIMED IS:

1. A method of accessing data regarding commerce assets such as products or services offered at virtual stores participating in a virtual marketplace in a client/server system based on a user query for data relating to a commerce asset for a particular asset type at a particular virtual store, the user accessing the client/server system through a client having a graphical user interface to obtain the user query and to display a response to the query, the assets data being stored in a database accessed by a resource manager, an application server interfacing the resource manager with graphical user interface, said method comprising the steps of:

- a) establishing a storepath relationship correlating asset types among related stores;
- b) resolving the user query into at least a database query executable by the resource manager;
- c) retrieving assets data for asset type available at particular virtual store; and
- d) returning assets data to user as the response to the query.

2. The method as set forth in claim 1, further comprising the step of:

- e) storing storepaths relationships in memory.

3. The method as set forth in claim 2, wherein the step of resolving the user query into at least a database query executable by the resource manager further comprises constructing the database queries based on the storepaths relationships in the memory.

4. The method as set forth in claim 1, wherein the each store SA has commerce assets CA having asset types AT.

5. The method as set forth in claim 4, wherein each of the asset types AT is mapped into relationship type RT for each store SA.

6. The method as set forth in claim 5, wherein the storepath for store SA and related stores SBn for relationship types RTn is determined based on an ordered list:

$\{(SA, SB1, RT1, S1), (SA, SB2, RT2, S2), \dots, (SA, SBn, RTn, Sn)\}$

where S is a value which may be used to sequence relationships with the same type, and $S1 \leq S2 \leq \dots \leq Sn$; and n is an integer representing the number of relationships in the storepath.

7. The method as set forth in claim 6, wherein the storepath relationships for the stores are defined by a mapping function MSP() as:

$MSP(SA, RT) \Rightarrow (SB1, SB2, \dots, SBn)$

and the mapping function MSP() mapping the store SA and the relationship type RT to an ordered list of related stores.

8. The method as set forth in claim 7, wherein the set of asset types AT for the storepath is represented by an ordered list:

$\{(AT1, RT, SA), (AT2, RT, SA), \dots, (ATn, RT, SA)\}.$

9. The method as set forth in claim 8, wherein a mapping function MATRT() between the asset type AT and the relationship type RT is defined as:

$MATRT(SA, AT) \Rightarrow RT.$

10. The method as set forth in claim 9, wherein the list of commerce assets CA having the asset type AT for the store SA are defined by an ordered list:

$\{(CA_1, SB_{k1}, Sk_1), (CA_2, SB_{k2}, Sk_2), \dots, (CA_n, SB_{kn}, Sk_m)\}$

where $Sk_1 \leq Sk_2 \leq \dots \leq Sk_m$; and m is an integer representing the number of relationships in the storepath with the same asset type AT.

11. The method as set forth in claim 10, wherein the storepath relationship for the store SA and an asset type AT is defined by a composite mapping function MSP() as follows:

MSP(SA, MATRT(SA, AT)).

12. A client/server system comprising:

at least one client having a graphical user interface for receiving a user's query for data relating to a commerce asset offered at a virtual store stored on a database;

an application server operatively connected to the client graphical user interface, the application server having a business logic component for resolving the query into at least a database query; and

a resource manager operatively connected to the application server, the resource manager including a database management system for processing the database queries, accessing the database containing a response to the query, retrieving and forwarding the response to the application server.

13. The client/server system as set forth in claim 12, wherein the virtual store is a participant in a virtual marketing campaign including a plurality of participant virtual stores.

14. The client/server system as set forth in claim 13, wherein the virtual stores are related to one another based on a storepath

relationship correlating commerce asset types among the virtual stores.

15. The client/server system as set forth in claim 14, wherein the storepath relationship for a virtual store SA and an asset type AT is defined by a composite mapping function MSP() as follows:

MSP(SA, MATRT(SA, AT)).

16. A computer program product having a computer readable medium tangibly embodying computer executable code for directing a data processing system to access data regarding assets such as products or services offered at virtual stores participating in a marketplace in a client/server system based on a user query about data asset for a particular asset type at a particular virtual store, the user accessing the client/server system through a client having a graphical user interface to obtain the user query and to display a response to the query, the assets data being stored in a database accessed by a resource manager, an application server interfacing the resource manager with graphical user interface, said computer program product comprising:

code for establishing a storepath relationship correlating asset types among related stores;

code for resolving the user query into at least a database query executable by the resource manager;

code for retrieving assets data for the asset type available at a particular virtual store; and

code for returning assets data to user as the response to the user query.

17. The computer program as set forth in claim 16, further comprising code for storing the storepath relationships in memory.

18. The computer program as set forth in claim 17, further comprising code for constructing the database queries based on the storepath relationships stored in the memory.

19. A computer data signal embodied in a carrier wave and having means in the computer data signal for directing a data processing system to access data regarding assets such as products or services offered at virtual stores participating in a virtual marketplace in a client/server system based on a user query about data asset for a particular asset type at a particular virtual store, the user accessing the client/server system through a client having a graphical user interface to obtain the user query and to display a response to the query, the assets data being stored in a database accessed by a resource manager, an application server interfacing the resource manager with graphical user interface, the computer data signal comprising:

means in the computer data signal for establishing a storepath relationship correlating asset types among related stores;

means in the computer data signal for resolving the user query into at least a database query executable by the resource manager;

means in the computer data signal for retrieving assets data for the asset type available at a particular virtual store; and

means in the computer data signal for returning the assets data to user as the response to the user query.

20. The computer data signal as claimed in claim 19, further comprising means in the computer data signal for storing the storepath relationships in memory.

21. The computer data signal as claimed in claim 20, wherein the means in the computer data signal for resolving the user query into at least a database query executable by the resource manager further comprises means in the computer data signal for constructing the database queries based on the storepath relationships in the memory.